

AB data from the backup database to one of the plurality of databases.

REMARKS

Claims 1, 3-12 and 14-31 are now presented for examination. Claims 2 and 13 have been canceled without prejudice or disclaimer of subject matter. Claims 1, 3, 6, 7, 12, 14, 17, 18, 23, 24, 26, 27, 29 and 30 have been amended to define still more clearly what Applicant regards as his invention, in terms which distinguish over the art of record.

Claims 1, 7, 8, 12, 18, 19 and 23-31 are independent.

Claims 1, 2, 4, 5, 7, 12, 13, 18, 23, 24, 26, 27, 29 and 30 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite, and also under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 5,649,196 (Woodhill et al.).

First, cancellation of Claims 2 and 13 renders the rejections of those claims moot.

The claims have been carefully reviewed, and are believed to comply with the requirements of Section 112. Accordingly, withdrawal of the rejection under that Section is respectfully requested.

Independent Claim 1 is directed to an information processing apparatus which can access a plurality of databases, and which comprises first copying means, for copying data selected from a first database to a second database, and means for determining if each of attribute items of attribute information appended to the data corresponds to each of attribute items of the second database. The apparatus of Claim 1 also has second copying means, for copying information of an attribute item, which is determined by the determination means to correspond to one of the attribute items of the second database, to a corresponding attribute item of the second database, and which copies information of the attribute item, which is determined by the determination means not to correspond any of the attribute items of the second database, to the predetermined attribute item of the second database.

Thus, important features of an apparatus constructed according to Claim 1 are, determining if each attribute items of the data corresponds to each of attribute items of the second database; copying information of an attribute item, which is determined to correspond to one of items of the second database, to the corresponding attribute item of the second database; and copying information of those attribute items which are determined not to correspond

to any item of the second database, to the predetermined attribute items of the second database.

By virtue of these features, even if some of the attribute items of the first database do not correspond to any of the attribute items of the second database, all attribute information can be maintained upon the copying of data of the first database to the second database. Furthermore, when that copied data in the second database is returned to the first database, former attribute information can be completely maintained (recovered).

Woodhill relates to a system for distributed storage management which has means for selectively copying binary objects stored on one of plural storage devices to another of the storage devices. According to *Woodhill*, a file is viewed as a data stream including normal data and attribute data, and the data stream is divided into binary objects upon copying of the file, when the file is backed up.

However, nothing has been found, or pointed out, in *Woodhill* that would teach or suggest a mismatching attribute item between copy origin and copy destinations, as asserted in the Office Action. That is, nothing in *Woodhill* is seen to teach or suggest copying data from a first database to a second database in which some of the attribute items of the first database do not correspond to any of the attribute

items of the second database. *Woodhill* cannot suggest copying information of an attribute item that has been determined not to correspond to any item of the second database, to the predetermined attribute item of the second database, as in Claim 1.

For at least that reason, Claim 1 is deemed to be clearly allowable over *Woodhill*.

Independent Claims 7, 12, 18, 23, 24, 26, 27, 29 and 30 recite subject similar to those of Claim 1 that are discussed above, and hence are also deemed allowable over *Woodhill*, for at least the same reasons.

Independent Claim 8 directed to an information processing apparatus which can access a plurality of databases, and which comprises first copying means for copying data selected from a first database to a second database, and means for holding conversion information indicating a correspondence between attribute items of the first and second databases. The apparatus of Claim 8 also has means for converting each of attribute items of attribute information appended to data copied by the first copying means to an attribute item of the second database in accordance with the conversion information. Also provided in the apparatus are second copying means for copying the

attribute information converted by the conversion means as attribute information in the second database.

Among important features of an apparatus according to Claim 8 are, holding conversion information indicating a correspondence between attribute items of first and second databases; converting each of the attribute items of attribute information appended to data copied by first copying means to an attribute item of the second database in accordance with the conversion information; and copying the attribute information converted by the conversion means as attribute information in the second database.

As argued above, nothing has been found or pointed out in *Woodhill* that would teach or suggest a mismatching attribute item, and therefore, *Woodhill* also is believed not to teach or suggest converting each of one or more attribute items of a first database to an attribute item of a second database, as recited in Claim 8. For at least that reason, claim 8 also is deemed to be clearly allowable over *Woodhill*.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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VERSION WITH CLAIMS MARKED TO SHOW CHANGES

1. (Amended) An information processing apparatus which can access a plurality of databases, comprising:

first copying means for copying data selected from a first database to a second database;

determination means for determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of attribute items of the second database; and

second copying means for copying information of an attribute item, [which is determined by said determination means not to be settable in the second database, to a predetermined attribute item of the second database] which is determined by said determination means to correspond to one of the attribute items of the second database, to a corresponding attribute item of the second database, and copies information of the attribute item, which is determined by said determination means not to correspond any of the attribute items of the second database, to the predetermined attribute item of the second database.

2. (Cancelled).

3. (Amended) The apparatus according to claim 1, wherein said second copying means copies the information of the attribute item which [cannot be set in] does not correspond to any of the attribution items of the second database to the predetermined item in a predetermined format which indicates information of a mismatching attribute item.

6. (Amended) The apparatus according to claim 1, further comprising:

holding means for holding conversion information indicating a correspondence between attribute items of the first and second databases, and

wherein said determination means determines based on the conversion information if each of the attribute items of the attribute information appended to the data [can be set in] corresponds to each of the attribute items of the second database.

7. (Amended) An information processing apparatus for backing up data present in a plurality of databases, comprising:

first copying means for copying data present in one of the plurality of databases to a backup database;

determination means for determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of the attribute items of the backup database;

second copying means for copying information of an attribute item, which is determined by said determination means to [be settable in] correspond to one of items of the backup database, to [a] the corresponding attribute item of the backup database, and copying information of an attribute item, which is determined by said determination means not to [be settable in] correspond to any of items of the backup database, to a predetermined item of the backup database in a predetermined format; and

information recovery means for, when attribute information stored in the predetermined attribute item in the predetermined format is detected upon copying data from the backup database to one of the plurality of databases, recovering the attribute information on the basis of an attribute item name and contents thereof indicated by the information.

12. (Amended) An information processing method which can access a plurality of databases, comprising:

[the] a first copying step, of copying data selected from a first database to a second database;

[the] a determination step, of determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of attribute items of the second database; and

[the] a second copying step, of copying information of an attribute item, [which is determined in the determination step not to be settable in the second database, to a predetermined attribute item of the second database] which is determined in said determination step to correspond to one of the attribute items of the second database, to a corresponding attribute item of the second database, and copies information of the attribute item, which is determined in said determination step not to correspond any of the attribute items of the second database, to the predetermined attribute item of the second database.

13. (Cancelled).

14. (Amended) The method according to claim 12, wherein the second copying step includes the step of copying the information of the attribute item which [cannot be set in] does not correspond to any of the attribution items of the second database to the predetermined item in a predetermined format which indicates information of a mismatching attribute item.

17. (Amended) The method according to claim 12, further comprising:

[the] a holding step, of holding conversion information indicating a correspondence between attribute items of the first and second databases, and

wherein the determination step includes the step of determining based on the conversion information if each of the attribute items of the attribute information appended to the data [can be set in] corresponds to each of the attribute items of the second database.

18. (Amended) An information processing method for backing up data present in a plurality of databases, comprising:

[the] a first copying step₁ of copying data present in one of the plurality of databases to a backup database;

[the] a determination step₁ of determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of the attribute items of the backup database;

[the] a second copying step₁ of copying information of an attribute item, which is determined in the determination step to [be settable in] correspond to one of items of the backup database, to [a] the corresponding attribute item of the backup database, and copying information of an attribute item, which is determined in the determination step not to [be settable in] correspond to any of items of the backup database, to a predetermined item of the backup database in a predetermined format; and

[the] an information recovery step₁ of recovering attribute information on the basis of an attribute item name and contents thereof indicated by attribute information, when attribute information stored in the predetermined attribute item in the predetermined format is detected upon copying data from the backup database to one of the plurality of databases.

23. (Amended) A database system which can copy data between a plurality of databases, comprising:

first copying means for copying data selected from a first database to a second database;

determination means for determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of attribute items of the second database; and

second copying means for copying information of an attribute item, [which is determined by said determination means not to be settable in the second database, to a predetermined attribute item of the second database] which is determined by said determination means to correspond to one of the attribute items of the second database, to a corresponding attribute item of the second database, and copies information of the attribute item, which is determined by said determination means not to correspond any of the attribute items of the second database, to the predetermined attribute item of the second database.

24. (Amended) A database system having a plurality of databases, comprising:

a backup database for backing up data present in the plurality of databases;

first copying means for copying data present in one of the plurality of databases to said backup database;

determination means for determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of the attribute items of said backup database;

second copying means for copying information of an attribute item, which is determined by said determination means to [be settable in] correspond to one of items of said backup database, to [a] the corresponding attribute item of said backup database, and copying information of an attribute item, which is determined by said determination means not to [be settable in] correspond to any of items of said backup database, to a predetermined item of said backup database in a predetermined format; and

information recovery means for, when attribute information stored in the predetermined attribute item in the predetermined format is detected upon copying data from said backup database to one of the plurality of databases, recovering the attribute information on the basis of an

attribute item name and contents thereof indicated by the information.

26. (Amended) A method of controlling a database system which can copy data between a plurality of databases, comprising:

[the] a first copying step, of copying data selected from a first database to a second database;

[the] a determination step, of determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of attribute items of the second database; and

[the] a second copying step, of copying information of an attribute item, [which is determined in the determination step, not to be settable in the second database, to a predetermined attribute item of the second database] which is determined in said determination step to correspond to one of the attribute items of the second database, to a corresponding attribute item of the second database, and copies information of the attribute item, which is determined in said determination step not to correspond

any of the attribute items of the second database, to the predetermined attribute item of the second database.

27. (Amended) A method of controlling a database system having a plurality of databases including a backup database, comprising:

[the] a first copying step₁ of copying data present in one of the plurality of databases to the backup database;

[the] a determination step₂ of determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of the attribute items of the backup database;

[the] a second copying step₃ of copying information of an attribute item, which is determined in the determination step to [be settable in] correspond to one of items of the backup database, to [a] the corresponding attribute item of the backup database, and copying information of an attribute item, which is determined in the determination step not to [be settable in] correspond to any of items of the backup database, to a predetermined item of the backup database in a predetermined format; and

[the] a information recovery step, of recovering attribute information on the basis of an attribute item name and contents thereof indicated by attribute information, when attribute information stored in the predetermined attribute item in the predetermined format is detected upon copying data from the backup database to one of the plurality of databases.

29. (Amended) A storage medium which stores a control program for a database client which copies data between a plurality of databases, said control program comprising:

[a] code [of the] for a first copying step of copying data selected from a first database to a second database;

[a] code [of the] for a determination step of determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of the attribute items of the second database; and

[a] code [of the] for a second copying step of copying information of an attribute item, [which is determined in the determination step not to be settable in

the second database, to a predetermined attribute item of the second database] which is determined in the determination step to correspond to one of the attribute items of the second database, to a corresponding attribute item of the second database, and copies information of the attribute item, which is determined in the determination step not to correspond any of the attribute items of the second database, to the predetermined attribute item of the second database.

30. (Amended) A storage medium which stores a database client control program for a database system having a plurality of databases and a backup database for backing up data present in the plurality of databases, said control program comprising:

[a] code [of the] for a first copying step of copying data present in one of the plurality of databases to the backup database;

[a] code [of the] for a determination step of determining if each of attribute items of attribute information appended to the data [can be set in] corresponds to each of the attribute items of the backup database;

[a] code [of the] for a second copying step of copying information of an attribute item, which is determined in the determination step to [be settable in] correspond to one of items of the backup database, to [a] the corresponding attribute item of the backup database, and copying information of an attribute item, which is determined in the determination step not to [be settable in] correspond to any of items of the backup database, to a predetermined item of the backup database in a predetermined format; and

[a] code [of the] for a information recovery step of recovering attribute information on the basis of an attribute item name and contents thereof indicated by attribute information, when attribute information stored in the predetermined attribute item in the predetermined format is detected upon copying data from the backup database to one of the plurality of databases.